



# Keller

# Easterling

# Matrix Space

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## **Matrix Space**

Keller Easterling

Consider a shifted focus from architectural objects and silhouettes to the matrix in which these objects are suspended. Look at the places where we live: the parking places, skyscrapers, turning radii, garages, street lights, driveways, airport lounges, highway exits, big boxes, strip malls, shopping malls, small boxes, free zones, casinos, retail, fast food restaurants, hotels, cash machines, tract housing, container ports, industrial parks, call centers, golf courses, suburbs, office buildings, business parks, resorts. The retinal afterglow is of a soupy matrix of details and repeatable formulas that make most of the space in the world whether—what we might call matrix space.

Buildings are no longer singularly crafted enclosures, uniquely imagined by an architect, but reproducible products or nearly identical units made from formulas set within similar urban arrangements. As repeatable phenomena engineered around logistics and the bottom line they constitute an infrastructural technology with elaborate routines and schedules for organizing consumption. Ironically, the more rationalized these spatial products become the better suited they are to irrational fictions of branding, complete with costumes and a patois of managementese. This familiar confetti of brightly colored boxes

nestled in black asphalt and bright green grass—the same in Texas or Taiwan or Miami—weave elaborate, emotional stories about Starbucks coffee, Beard Papa cream puffs and Arnold Palmer golf communities.

Now not only the buildings and business parks but also entire world cities are constructed according to a formula—an infrastructural technology. We no longer build cities by accumulating singular masterpiece buildings. Instead the most prevalent formula replicates Shenzhen or Dubai anywhere in the world with a drumbeat of generic skyscrapers. Computer generated videos that fly through these shining skylines have become a standard signal of aspirations to enter the global marketplace. Here, manifest in these highly logistical specifications, infrastructure is then not the urban substructure, but the urban structure itself—the very parameters of global urbanism.

## Operating system

In ‘Notre Dame de Paris’, Victor Hugo famously observed that “... architecture [like that of the cathedral] was developed in proportion with human thought; it became a giant with a thousand heads and a thousand arms, and fixed all this floating symbolism in an eternal, visible, palpable form.” The novel proposed that Gutenberg’s new technology threatened that giant; the printed word usurped architecture as the vessel of cultural imagination and stole its supernatural power. Hugo prophesied “This will kill that. The book will kill the edifice.” While evidence of infrastructure space within the contemporary city might appear to confirm the death of architecture, perhaps it really only demonstrates that the giant is alive again. Architecture makes unique objects—like stones in the water—while a constant flow of repeatable spatial formulas constructs a sea of urban spaces. Architects and urbanists

typically characterize this state of affairs as disempowering, but if architecture was indeed killed by the book, perhaps it is reincarnate as something more powerful—as information itself. Infrastructure space has become a medium of information. The information resides invisible, powerful activity that determines how objects and content are organized and circulated. Infrastructure space, with the power and currency of software, is an operating system for shaping the city.

That operating system is something like the “medium” in Marshall McLuhan’s famous dictum “the medium is the message.” McLuhan highlighted the difference between the declared content of media—music on the radio or videos on the internet—and the means by which the content was delivered. The content, he argued, is like the “juicy piece of meat carried by the burglar to distract the watchdog of the mind.” In other words, what the medium is saying sometimes prevents us from seeing what the medium is doing. In the urban context, we can identify the singularly crafted building—the stone in the water—as the declared content. Yet, the activity of the medium or infrastructural matrix—what it is doing rather than what it is saying—is sometimes difficult to detect.

While we might not think of space as an information technology unless it is embedded with sensors and digital media, and while there is actual digital software for generating and analyzing urban arrangements, matrix space, even without media enhancement, behaves like an operating system. And while we also do not typically think of static objects and volumes in urban space as having agency, infrastructure space is doing something. Like an operating system, the medium of infrastructure space makes certain things possible and other things impossible. It is not the declared content but rather the content manager dictating the rules of the game in the urban milieu.

This matrix space is a form, but not like a building is a form;

it is an updating platform unfolding in time to handle new circumstances, encode the relationships between buildings or dictate logistics. There are object forms like buildings and active forms like bits of code in the software that organizes building. Information resides in these, often undeclared, activities of this software—the protocols, routines, schedules and choices it manifests in space. McLuhan's meme, transposed to infrastructure space might be: the action is the form.

## Extrastatecraft

Contemporary matrix space is the secret weapon of the most powerful people in the world precisely because it orchestrates activities that can remain unstated but nevertheless consequential. Some of the most radical changes to the globalizing world are being written, not in the language of law and diplomacy, but rather in these spatial, infrastructural technologies often because market promotions or prevailing political ideologies lubricate their movement through the world. These stories can foreground content to disguise or distract from what the organization is actually doing.

Far removed from familiar legislative processes, these dynamic systems of space, information and power generate de facto forms of polity faster than even quasi-official forms of governance can legislate them. Large scale spatial organizations like infrastructure projects (e.g. US rail in the 19th century, global submarine cable networks) have long created the need for administrative authority comparable to that of the state, and they continue to require direction from new constellations of international, intergovernmental and nongovernmental players. As a site of multiple, overlapping or nested forms of sovereignty, where domestic and transnational jurisdictions collide, matrix space becomes a medium of what might be called extrastatecraft—a portmanteau describing the often

undisclosed activities outside of, in addition to and sometimes even in partnership with statecraft.

While space may be enormously consequential in these infrastructure developments, private enterprise and other forces of extrastatecraft often speak in other technical languages.

The financial industry quantifies the housing landscapes, the carbon market regulates rainforest landscapes, informatic specialists shape the mobile telephony technoscape, McKinsey consultants offer econometrics or ISO-toned jargon-managementese. Political and economic data come cloaked in the rationality of science even though they may really present false logics or systems of belief. Despite its relative physical durability—the space of infrastructure is often treated only as a by-product of more volatile markets and political games. Who is treating space itself as information? Who is writing the software or protocols in which spatial variables take the lead?

The interaction of people and technology in the development of social/technical networks like infrastructure, already calls on several areas of theory and scholarship, among these: social sciences, arts, business history, Science and Technology Studies, history of science, organization studies, informatics, media and communication studies, architecture and urbanism. Some of the most innovative thinkers in these disciplines now insist on stretching disciplinary habits to question the authority of their science or the purity of their master narratives. Beyond reinforcing the presumptions of theory, they want to discover what is actually happening on the ground. Not only the sciences, but also the arts of architecture and urbanism contribute to the conversation at this juncture, offering interdependent active forms in addition to object forms and master plans. In the search for a more complex context, infrastructure space may be a potent, fresh field of evidence.

Exposing evidence of the infrastructural operating system is as

important as acquiring skills to hack into or update the software. Still, negotiating the complexities of extrastatecraft to leverage change in infrastructure space—hacking the operating system—requires some special skills—an expanded repertoire of form-making, history-telling and political craft.

Mark Twain, once a steamboat captain on the Mississippi, developed techniques for navigating the river. While the passengers saw “pretty pictures” of landscape scenes, he was extracting information from the changing “face of the water.” A little ripple, eddy or “faint dimple” signaled turbulence or obstacles in a complex and potentially dangerous organization below the surface. These were markers of unfolding potentials or inherent agency in the river—what can only be called its disposition. Disposition is the character or propensity of an organization that results from all its activity. It is the medium, not the message. Its not only the pattern printed on the fabric but the way the fabric floats. It is not the shape of the game piece but the way the game piece plays. It is not the text but the constantly updating software that manages the text. It is not the object form but the active form.

For each technology in infrastructure space, to distinguish between what the organization is saying and what it is doing—the pretty landscape pictures versus the fluid dynamics of the river—it is to read the difference between a declared intent and an underlying disposition. These activities of a technology may be difficult to see even though, given the ubiquity of infrastructure space, they are hidden in plain sight. Examining each one, each active form, like each dimple or ripple on the water or each bit of code in software, makes them more palpable.

Different from the object forms of masterpiece buildings or master plans, these active forms are forms in another gear or register. We might consider multipliers, switches, a network topology or an interplay of any of these spatial variables. In

addition to making object form, designing that interplay and learning to anticipate some of its consequences can be the design intention. Active forms are markers of disposition, and disposition is the character of an organization that results from the circulation of these active forms within it.

An important diagnostic in the fluid politics of extrastatcraft, disposition uncovers accidental, covert or stubborn forms of power—political chemistries and temperaments of aggression, submission or violence—hiding in the folds of infrastructure space. A multitude of active forms can be used to both detect and adjust that disposition. These forms can be technological, organizational or social. Indeterminate to be practical, the forms deliver not a plan but an interplay able to adjust to different situations over time.

Matrix space also offers an enhanced repertoire for political activism. The most familiar forms of political activism demand declaration. Yet, while there are moments to stand up and give it a name, dissent is often fooled by the sneaky way the world works as the real power players maintain a currency in undeclared activities. Infrastructure space constitutes a wilder mongrel than any familiar Leviathan for which we have a well-rehearsed political response. The things that make infrastructure space powerful—its multipliers (e.g. zones, cell phones, spatial products), its irrational fictions or its undeclared but consequential activities—are perhaps the very things that make it immune to righteous declaration and prescription. The rational, resolute or righteous, while cornerstones of dissent, are sometimes less consequential than the discrepant, fictional or sly. Infrastructure space tutors a shrewder, cagier counter to the lubricated agility of most global powers—an alternative extrastatecraft.



“Matrix Space” is adapted from the forthcoming book *Extrastatecraft: the power of infrastructure space* (New York and London: Verso, 2014).

**Keller Easterling**, is an architect, urbanist, and writer. Her latest book, *Enduring Innocence: Global Architecture and Its Political Masquerades* (MIT, 2005), researches familiar spatial products that have landed in difficult or hyperbolic political situations around the world. The book won Yale's Gustave Ranis Award for the best book by a Yale faculty member in 2005. Her previous book, *Organization Space: Landscapes, Highways and Houses in America*, applies network theory to a discussion of American infrastructure and development formats.

